

ABSTRACT

There is described a method and circuit for amplifying an input current signal to provide an output current signal according to a predetermined gain profile. The method and circuit can be used for designing current-mode circuits employing MOS transistors or other kinds of electronic device that have three or more terminals. The circuit can operate with sub-nA currents, provide a very high current gain, and dissipate very low power. The structure of the circuit is simple and the transistors used do not have to have a large geometrical size. The capacitive loads are minimized and the operation speed is thus maximized with the minimum power dissipation.